Final
Environmental Assessment

Giant Springs State Park
Irrigation System Improvement Project

March 2007

Montana Fish, Wildlife & Parks

Final Environmental Assessment
MEPA, NEPA, MCA 23-1-110 CHECKLIST

PART I. PROPOSED ACTION DESCRIPTION

1. Type of proposed state action: To rehabilitate and improve the underground irrigation system and the historic concrete footbridges at Giant Springs State Park.

2. Agency authority for the proposed action:
FWP has the authority to develop outdoor recreational resources in the state per 23-2-101 MCA.

3. Name of project: Irrigation System Improvements, Giant Springs State Park

4. Name, address and phone number of project sponsor:

Montana Fish, Wildlife & Parks

1420 East 6th Avenue	4600 Giant Springs Road
Helena, MT 59620	Great Falls, MT 59405
406-444-3750	406-454-5840

5. Estimated Schedule of Events:
Public Comment Period: January 5, 2007 – January 25, 2007
FWP Decision Notice Issued: January 30, 2007
Consultant Selection – May 2007
Final Design & Bid Specifications – Early summer 2007
Bid Solicitation – Summer 2007
Construction – Fall 2007

6. Location affected by proposed action (county, range and township):
Cascade County, T21N R4E Section 33
The project area is located in Giant Springs State Park on Giant Springs Road.

Figure 1: Regional overview map of Giant Springs State Park

7. Project size -- estimate the number of acres that would be directly affected that are currently:

	Acres		Acres
(a) Developed:		(d) Floodplain	0
Residential	0		
Industrial	0	(e) Productive:	
		Irrigated cropland	0
(b) Open Space/		Forestry	0
Dry cropland	0	Rangeland	0
Woodlands/Recreation	**12**	Other	0
(c) Wetlands/Riparian Areas	0		

8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits:

Agency Name	Permit
MT. Dept. of Labor & Industry	State Electrical Permit

(b) Funding:

Agency Name	Funding Amount
Montana Fish, Wildlife & Parks	
Parks Earned Revenue	$150,000
Land & Water Conservation Fund (LWCF)	$150,000

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name	Type of Responsibility
None	

9. Narrative summary of the proposed action or project including the benefits and purpose of the proposed action:

Giant Springs State Park encompasses the historic freshwater springs site discovered by the Lewis and Clark Expedition in 1805 and one of the largest freshwater springs in the world, flowing at a measured 156 million gallons of water per day. This day-use park provides outstanding opportunities to picnic by the Missouri River, visit the fish hatchery and visitor center, walk along the Rivers Edge Trail, view nearby Rainbow Falls overlook, or visit the neighboring U.S. Forest Service Lewis and Clark Interpretive Center.

Giant Springs State Park is a very popular destination for outdoor and recreational enthusiasts. During 2006, the park ranked number 1 in visitation for the Montana State Park system with over 263,000-recorded visitors. The proposed project would benefit the community of Great Falls, local recreational enthusiasts, and tourists by enhancing the scenic beauty, landscaping, safety, and overall aesthetics of the park.

This project should result in reduced water and energy costs due to the improved efficiency and distribution of irrigation water. Time and expenses associated with irrigation system maintenance should also be reduced, freeing up our maintenance staff for other routine and cyclic park maintenance.

The proposed action would rehabilitate and improve the underground irrigation system that services approximately 12 acres of turf, trees, shrubs and vegetation at Giant Springs State Park. The park's current irrigation system was installed in 1974 and is in an advanced state of deterioration. The system requires constant maintenance and troubleshooting to keep it operable and is configured in a manner that results in inadequate irrigation coverage of trees, shrubs and turf in certain areas.

Current irrigation system deficiencies include old iron pipelines, ineffective sprinkler heads and layout, overall irrigation system coverage of turf areas, leakage resulting in increased energy costs to pump water, and significant costs associated with frequent repair and maintenance work.

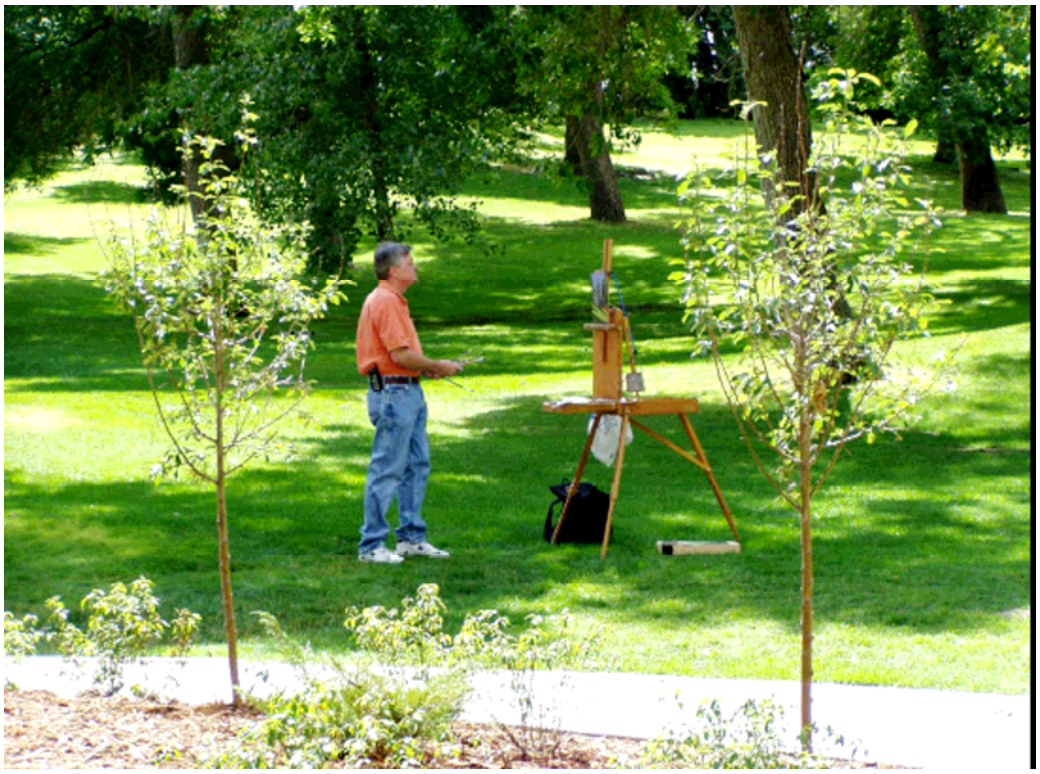

Figure 2: Lush irrigated turf and vegetation in Giant Springs State Park

Specific actions proposed to improve the irrigation system include:

- Replacement and/or addition of underground main lines at a depth of 18 inches (PVC or Poly butylene pipe).
- Replacement and/or addition of underground lateral lines at a depth of 12 inches (PVC or Poly butylene pipe).
- Topsoil remediation to enhance turf substrate in certain areas
- Installation and reconfiguration of new irrigation system sprinkler heads.
- Construction of a new (approximately 100 square foot) concrete masonry irrigation system pump house located east of the Hatchery..
- Installation of a new vertical turbine irrigation pump and electrical control system.
- Evaluation and replacement of existing irrigation controllers as necessary to improve system and operator efficiency.
- Evaluate and replace existing topsoil as necessary and improve existing landscaping

Additional proposed actions not related to the irrigation system include:

- Repair or rehabilitate the historic concrete bridges across the Giant Springs outflow area and other historical concrete or stone masonry features to ensure long term viability of the park's historic features.
- Improving the pedestrian entrance to the Giant Springs area to provide a safer loading and unloading site for buses and other larger vehicles.

Figure 3: Interior of irrigation pump house

In addition to the irrigation system improvements, the proposed project would address options to repair or rehabilitate two existing historic poured concrete bridges that span the main discharge of the springs from its western edge to the Roe River Island. The longer bridge consists of four arched spans, decorated with incised panels flanking the arches. Between each bridge span is a smaller diameter “culvert” hole with raised areas of concrete. Most surfaces of the bridge are spalling and need to be rehabilitated to ensure long-term viability of the bridge. Numerous rectangular repair areas on the top deck of the bridge indicate that a railing was present at one time. To improve visitor safety on the bridge, it is desired to re-install a handrail and maintain the character of the view shed in the park. The deck of the bridge transitions steeply to the modern sidewalk at the western end, creating a potential slipping hazard in icy conditions, it is desired to reduce this transition and comply with ADA standards.

The second bridge is a single span poured concrete bridge over the Roe River connecting the Roe River Island to the main part of the park. The span is showing signs of major deterioration near the water line, as well as the other surfaces, and needs to be repaired or rehabilitated. The bridge also needs safety handrails to replace old and deteriorating masonry block rails that were added on to the bridge in the 1970’s.

Addressing the condition of the historic bridges is important in order to sustain the long-term viability of these historic features. All work associated with the bridges would be completed following consultation with the State Historic Preservation Office.

Figure 4: Historic concrete bridge over the Giant Springs discharge area

During trenching work, the FWP Network Support Bureau proposes including a conduit in the trench. The conduit could be used in the future expansion of the State Network (SummitNet). Hatchery employees, State Fish Lab employees and Park Rangers could access SummitNet resources if a fiber-optic cable was routed in the conduit from the Region Four Headquarters Building to Giant Springs State Park. Phone lines could also be routed in the cable, allowing employees in the park and hatchery to access the phone network system in the headquarters building.

Specific areas of proposed work are illustrated in the schematic in Appendix C.

10. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:

Alternative A: Rehabilitate and improve the underground irrigation system and historic concrete bridge at Giant Springs State Park.

This alternative would rehabilitate and improve the underground irrigation system that services the turf, trees, shrubs and vegetation at Giant Springs State Park. Main and

lateral irrigation lines would be replaced and fitted with new and improved sprinkler heads. A new concrete masonry pump house would be constructed along with electrical control systems for the irrigation and pump system. Certain areas of the park with shallow and/or poor soil quality would receive additional topsoil to ensure the survival and viability of the park's turf and vegetative cover.

In addition to the irrigation system improvements, the proposed project would also repair or rehabilitate the existing historic poured concrete arched bridges that span the main discharge of the springs from its western edge to the Roe River Island.

Alternative B: No action (maintaining the existing underground irrigation system)

This alternative would involve the status quo, in which FWP would continue to operate and maintain a deteriorated and problematic irrigation system. This would require continued utilization of the existing pump house, resulting in continued exposure of park and hatchery employees to an unacceptable health and safety risks. The park's turf, trees, shrubs and vegetation would not receive adequate water and thus their condition and/or survival would be threatened and the park's historic landscape would be jeopardized.

Because the turf trees, shrubs and vegetation greatly enhance the scenic beauty and aesthetic appeal of the park, the overall quality of the visitor experience would be diminished. The popular concrete bridges over the Giant Springs outflow area would continue to deteriorate and present public safety concerns that may ultimately lead to closure or removal of the bridge. Failure to properly address the condition of the bridges would ultimately result in an adverse impact to the historic architectural integrity of the park.

PART II. ENVIRONMENTAL REVIEW CHECKLIST

3. Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.

A. PHYSICAL ENVIRONMENT

1. LAND RESOURCES Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?			X		X	1b.
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				
e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?		X				
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (attach additional pages of narrative if needed):

1b. Trenching will be required to install new irrigation main lines at an 18-inch depth and lateral lines at a 12-inch depth. Trenched areas will be backfilled and reseeded. Additional over-covering of topsoil will be applied in key areas where current soil conditions are too shallow for successful turf health.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

2. AIR Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)		X				
b. Creation of objectionable odors?		X				
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				
e. Will the project result in any discharge, which will conflict with federal or state air quality regs? (Also see 2a.)		X				
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Air Resources (attach additional pages of narrative if needed):

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

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3. WATER Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?		X				
b. Changes in drainage patterns or the rate and amount of surface runoff?		X				
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?		X				3f.
g. Changes in the quantity of groundwater?		X				3g.
h. Increase in risk of contamination of surface or groundwater?		X				3h.
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				
l. Will the project affect a designated floodplain? (Also see 3c.)		X				
m. Will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)		X				
n. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Water Resources (attach additional pages of narrative if needed):

3.f/g/h. On Feb. 2 FWP consulted with Thomas Patton, Hydrogeologist with Montana Bureau of Mines and Geology in regard to the proposed projects on replacing the irrigation system at Giant Springs and possibly rehabilitation of the historic masonry bridges at the spring. Mr. Patton is very familiar with Giant Springs and felt there would be no impact on the springs with the work proposed. He stated that since the bridges are outside of the main pool, and work is to be completed primarily above the water line there would be no impact. He further said that the geology of the springs is such that structures could be built within the springs themselves and still not have an impact. He also said that the irrigation system work would have no impact. Mr. Patton acknowledged indications that climatic change has decreased the flow from the aquifer, but advised that his issue has no apparent connection with the proposed work.

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** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

4. VEGETATION Will the proposed action result in?	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		X				
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				4c
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X		X	4e
f. Will the project affect wetlands, or prime and unique farmland?		X				
g. Other:						

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Vegetation (attach additional pages of narrative if needed):

4c. A search of the Montana Natural Heritage Program's (MNHP) species of concern database identified two nonvascular plants of significance, *Entosthodon reubiginosus* and *Funaria americana*, occurring in the region. These plants are noted in the database as being possible extinct, however there has not been a recent survey of the area (communication with Scott Mincemoyer, MNHP botanist). Because the project area is located within a historically well manicured, maintained, and landscaped turf, it is unlikely that any species of concern would be impacted.

4e. Since there are already noxious weeds established along the Giant Springs Road right-of-way adjacent to the project area, future ground disturbances are likely to increase the possibility of noxious weeds becoming further established in the area. Mitigating actions by FWP will include weed spraying, biological control, or mechanical removal.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

** 5. FISH/WILDLIFE Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Deterioration of critical fish or wildlife habitat?		X				
b. Changes in the diversity or abundance of game animals or bird species?		X				5a/b
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?		X				
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				5f/h
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?		X				
h. Will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.)		X				5f/h
i. Will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)		X				
j. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Fish and Wildlife (attach additional pages of narrative if needed):

5a/b. Long-term and short-term wildlife impacts should be negligible (per Graham Taylor, R4 Wildlife Manager).

5f/h. A search of the Montana Natural Heritage Program's (MNHP) species of concern database identified seven species of birds as species of concern in the area of the conservation easement. The species identified included: Chestnut-collared Longspur, Grasshopper Sparrow, Lark Bunting, Long-billed Curlew, McCown's Longspur, Sprague's Pipit, and Swainson's Hawk. All these species are listed 'at risk' because of limited numbers, range, and/or habitat. A search of the MNHP Point Observation Database found that none of the birds of concern noted have been seen within the proposed conservation easement area.

Bald eagles are frequently seen year round in the Missouri river corridor, but the proposed project will have no impact on their activities.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

B. HUMAN ENVIRONMENT

6. NOISE/ELECTRICAL EFFECTS Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Increases in existing noise levels?			X		X	6a
b. Exposure of people to serve or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Noise/Electrical Effects (attach additional pages of narrative if needed):

6a. Elevated noise levels will occur during the use of power equipment used to dig trenches for the installation of irrigation main and lateral lines. This noise will be mitigated by ensuring that trenching work is concentrated within a short time span.

7. LAND USE Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Adverse effects on or relocation of residences?		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Use (attach additional pages of narrative if needed):

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

8. RISK/HEALTH HAZARDS Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?			X		X	8a/d
b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?		X				
c. Creation of any human health hazard or potential hazard?		X				8c.
d. Will any chemical toxicants be used? (Also see 8a)			X		X	8a/d
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Risk/Health Hazards (attach additional pages of narrative if needed):

8a/d. Chemical spraying is part of FWP's weed management plan to limit the infestation of noxious weeds in the park. Only a trained licensed professional would conduct weed treatment and storage and mixing of the chemicals would be in accordance with standard operating procedures. Any heavy equipment used for the project would be operated by qualified/certified personnel only. Standard precautions would be taken to avoid hazardous material spills.

8c. Construction of a new concrete masonry pump house will help eliminate on-going safety concerns with the current pump house, which exposes park employees to wet concrete floors and a dangerous electrical control panel location.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

9. COMMUNITY IMPACT **Will the proposed action result in:**	**IMPACT ***					
	Unknown	**None**	**Minor**	**Potentially Significant**	**Can Impact Be Mitigated**	**Comment Index**
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				
f. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Community Impact (attach additional pages of narrative if needed):

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** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

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10. PUBLIC SERVICES/TAXES/UTILITIES Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify:		X				
b. Will the proposed action have an effect upon the local or state tax base and revenues?		X				10b.
c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?			X			10c
d. Will the proposed action result in increased use of any energy source?			X			
e. Define projected revenue sources		X				10e
f. Define projected maintenance costs.			X			10f
g. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Public Services/Taxes/Utilities (attach additional pages of narrative if needed):

10b. No changes will occur to the local or state tax base because there will be no change in the effected land's classification per state statute MCA 76.6.208.

10c. The proposed project will result in no change to existing utility power lines. Updated electrical controls for the irrigation and pump system will be necessary and may result in a slight increase in the use of electricity.

10e. There will be no revenue generated from this project.

10f. Currently, FWP staff provides general maintenance and upkeep for the existing irrigation system and other park infrastructure features. This service would continue and additional maintenance costs are expected to be minimal to FWP.

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** 11. AESTHETICS/RECREATION Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		X				11a
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Tourism Report Attached.)		X				11c
d. Will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.)		X				
e. Other:		X				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Aesthetics/Recreation (attach additional pages of narrative if needed):

11a. The proposed project will maintain and enhance the aesthetic beauty, lush turf, tree canopy, and vegetative cover in Giant Springs State Park. These park features enhance the overall quality of the visitor experience.

11c. The public access to the area will continue if the proposed project s approved and the park will continue to be a destination for local and visiting recreational and park enthusiasts. See *Appendix D* for Tourism Report.

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** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

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12. CULTURAL/HISTORICAL RESOURCES Will the proposed action result in:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?		X				
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				
d. Will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.)			X		Yes	12d.
e. Other:						

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Cultural/Historical Resources (attach additional pages of narrative if needed):

12d. FWP has contracted the services of Sievert & Sievert Cultural Resource Consultants of Great Falls, MT to assess the conditions of the park's historic masonry and rock features that have been determined to be eligible for listing on the National Register. The consultant will prepare a report to guide any future work on these features. FWP would apply U.S. Department of Interior standards for any repair or rehabilitation of any eligible features and the MT State Historical Officer will be consulted throughout the process.

On Jan. 26, 2007, FWP conducted a consultation with SHPO regarding public comments received and the project in general. SHPO advised that FWP's actions as outlined above would ensure that our cultural resource compliance responsibilities are fulfilled and concurred that the rehabilitation of the irrigation system was a necessary and appropriate action that would not adversely affect cultural resources.

* Include a narrative explanation under Part III describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

** Include a narrative description addressing the items identified in 12.8.604-1a (ARM).

*** Determine whether the described impact may result and respond on the checklist. Describe any minor or potentially significant impacts.

**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

SIGNIFICANCE CRITERIA

13. SUMMARY EVALUATION OF SIGNIFICANCE Will the proposed action, considered as a whole:	IMPACT *					
	Unknown	None	Minor	Potentially Significant	Can Impact Be Mitigated	Comment Index
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.)			X			13a
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		X				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		X				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?		X				
f. Is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)		X				
g. List any federal or state permits required.			X			13g.

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Significance Criteria (attach additional pages of narrative if needed):

13a. Although minor effects to several resources have been identified, those noted can be mitigated or are of a positive impact. The proposed project will provide long-term benefits for public recreation and enjoyment of Giant Springs State Park.

13g. MT. Dept. of Labor & Industry, State Electrical Permit

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**** Include a discussion about the issue in the EA narrative and include documentation if it will be useful.

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

The proposed project is consistent with the management prescription for Giant Springs State Park as outlined in the Giant Springs State Park Management Plan (Jan. 2004). Repair or rehabilitation of the historic footbridges at the Giant Springs would be initiated after assessment of options by a qualified historic architect/engineer and appropriate consultation with the Montana State Historic Preservation Office.

PART III. NARRATIVE EVALUATION AND COMMENT

The proposed action will have no negative cumulative effects on the physical and human environments. When considered over the long-term, this action poses significant positive effects for park visitors and the public's continuing access to and enjoyment of this scenic and historic State Park.

Alternative B would involve continued irrigation of the park's turf, trees and vegetation, using an outdated, maintenance intensive system that is subject to failure. The alternative would not be cost effective in the long run and would continue to expose park maintenance staff to elevated risk associated with the unsafe irrigation pump house.

PART IV. PUBLIC PARTICIPATION

1. Describe the level of public involvement for this project if any, and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- Two public notices in each of these papers: *Helena Independent Record and Great Falls Tribune;*
- One statewide press release;
- Public notice on the Fish, Wildlife & Parks web page: *http://fwp.mt.gov.*

Copies of this environmental assessment will be distributed to interested parties to ensure their knowledge of the proposed project. Copies will be available for pubic review at FWP Region 4 Headquarters.

This level of public notice and participation is appropriate for a project of this scope having few minor impacts.

2. Duration of comment period, if any.

The public comment period will extend for (21) fourteen days following the publication of the second legal notice in area newspapers. Written comments will be accepted until 5:00 p.m., January 16, 2007 and can be mailed to the address below:

Giant Springs State Park Irrigation System Improvements
Montana Fish, Wildlife & Parks
Region 4 Headquarters
4600 Giant Springs Road
Great Falls, MT 59405

Or email comments to: rsemler@mt.gov

PART V. EA PREPARATION

1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)?
If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.

Based upon the above assessment, which has identified a very limited number of minor impacts from the proposed action, an EIS in not required and an environmental assessment is the appropriate level of review.

2. Name, title, address and phone number of the person(s) responsible for preparing the EA:

Roger Semler
Regional Parks Manager
Montana Fish, Wildlife & Parks
4600 Giant Springs Road
Great Falls, MT 59405
406-454-5859

Matt Marcinek
Giant Springs State Park Manager
Montana Fish, Wildlife & Parks
4600 Giant Springs Road
Great Falls, MT 59405
406-454-5858

Rebecca Cooper
MEPA Coordinator
Montana Fish, Wildlife & Parks
1420 E. 6th Ave., Helena MT 59601
406-444-4756

3. List of agencies consulted during preparation of the EA:

Montana Fish, Wildlife & Parks
- Parks Division
- Wildlife Division
- Legal Bureau
- Lands Bureau
- Design and Construction Bureau

Montana Department of Commerce – Tourism
Montana Natural Heritage Program – Natural Resources Information System (NRIS)
Montana State Historic Preservation Office (SHPO)

APPENDICES

A. MCA 23-1-110 Qualification Checklist
B. Current map of Giant Springs State Park
C. Schematic of proposed irrigation system
D. Tourism Report – Department of Commerce
E. Montana Historic Preservation Office Consultation

APPENDIX A
23-1-110 MCA
PROJECT QUALIFICATION CHECKLIST

Date: December 52006 **Person Reviewing:** Rebecca Cooper

Project Location: Giant Springs State Park, Irrigation System Improvements

Description of Proposed Work:

The following checklist is intended to be a guide for determining whether a proposed development or improvement is of enough significance to fall under 23-1-110 rules. (Please check ✓ all that apply and comment as necessary.)

[ ] A. New roadway or trail built over undisturbed land?
Comments*:*

[✓]B. New building construction (buildings <100 sf and vault latrines exempt)?
Comments*: The proposed project would include construction of a x square foot masonry concrete irrigation system pump house*

[✓] C. Any excavation of 20 c.y. or greater?
Comments*: Ground trenching at depths of 12 –18 inches will be required for the lateral and main underground irrigation lines.*

[ ] D. New parking lots built over undisturbed land or expansion of existing lot that increases parking capacity by 25% or more?
Comments*:*

[ ] E. Any new shoreline alteration that exceeds a doublewide boat ramp or handicapped fishing station?
Comments*:*

[ ] F. Any new construction into lakes, reservoirs, or streams?
Comments*:*

[ ] G. Any new construction in an area with National Registry quality cultural artifacts (as determined by State Historical Preservation Office)?
Comments*:*

[ ] H. Any new above ground utility lines?
Comments*:*

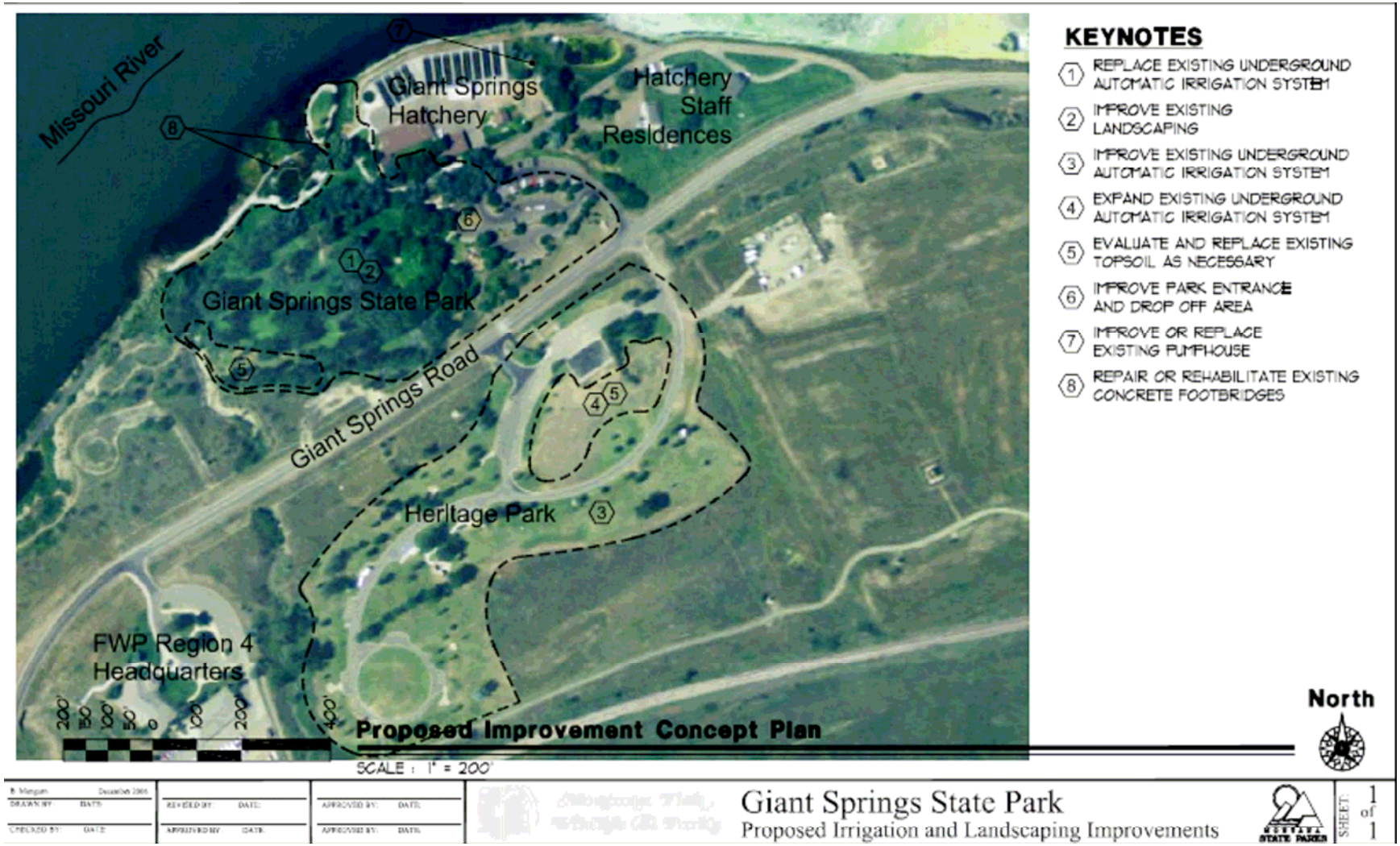
[ ] I. Any increase or decrease in campsites of 25% or more of an existing number of campsites?
Comments*:*

[ ] J. Proposed project significantly changes the existing features or use pattern; including effects of a series of individual projects?
Comments*:*

If any of the above are checked, 23-1-110 MCA rules apply to this proposed work and should be documented on the MEPA/HB495 CHECKLIST. Refer to MEPA/HB495 Cross Reference Summary for further assistance.

APPENDIX B
Current map of Giant Springs State Park

APPENDIX C
Proposed Irrigation System Improvements



APPENDIX D
TOURISM REPORT
MONTANA ENVIRONMENTAL POLICY ACT (MEPA) & MCA 23-1-110

The Montana Department of Fish, Wildlife and Parks has initiated the review process as mandated by MCA 23-1-110 and the Montana Environmental Policy Act in its consideration of the project described below. As part of the review process, input and comments are being solicited. Please complete the project name and project description portions and submit this form to:

Victor Bjornberg, Tourism Development Coordinator
Travel Montana-Department of Commerce
PO Box 200533
1424 9th Ave.
Helena, MT 59620-0533

Project Name: Giant Springs State Park, Irrigation System Improvements

Project Description:
This alternative would rehabilitate and improve the underground irrigation system that services the turf, trees, shrubs and vegetation at Giant Springs State Park. Main and lateral irrigation lines would be replaced and fitted with new and improved sprinkler heads. A new concrete masonry pump house would be constructed long with electrical control systems for the irrigation and pump system. Certain areas of the park with shallow and/or poor soil quality would receive additional topsoil to ensure the survival and viability of the park's turf and vegetative cover.

In addition to the irrigation system improvements, the proposed project would also repair or replace the existing historic poured concrete arched bridge that spans the main discharge of the springs from its western edge to the Roe River Island.

1. Would this site development project have an impact on the tourism economy?
   NO YES If YES, briefly describe:

   1. Does this impending improvement alter the quality or quantity of recreation/tourism opportunities and settings?
      NO YES If YES, briefly describe:

Signature Victor Bjornberg, Tourism Dev. Coordinator, MT Commerce Dept
Date December 6, 2006

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